Safety and Occupational Health Council

4 November 2003

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Agenda

- ✔ Commander’s Opening Comments
- ✔ Purpose of SOHC
- ✔ Safety Metrics - FY 2003, Cost Avoidance, FY 2004 Ceilings
- ✔ Risk Management
- ✔ Parking Lot Illumination
- ✔ Review of Hazardous Processes
- ✔ Fire & Emergency Services
- ✔ Safety Actions / Lessons Learned Charts
- ✔ Review of Open Issues
- ✔ Hot Topics
- ✔ Issues from Council
- ✔ Wrap Up

Commander's Opening Comments

Purpose of Safety and Occupational Health Council

Purpose of SOHC

- ✔ Forum to Evaluate Safety and Occupational Health Program Status
- ✔ Review Safety and Occupational Health Performance
- ✔ Forum to Share Safety Actions and Lessons Learned
- ✔ Forum to Address Major Issues

Safety Metrics

Frequency Rates

Calculating Frequency Rates:

Frequency Rate = (Number of Incidents) x (200,000 Hours)*

Number of Exposure Hours

*** 200,000 Hours = (100 persons) x (2000 Hours) or 1 Man Year**

Example:

Total Incident Rate = (74) x (200,000 Hours)
2,011,228.2

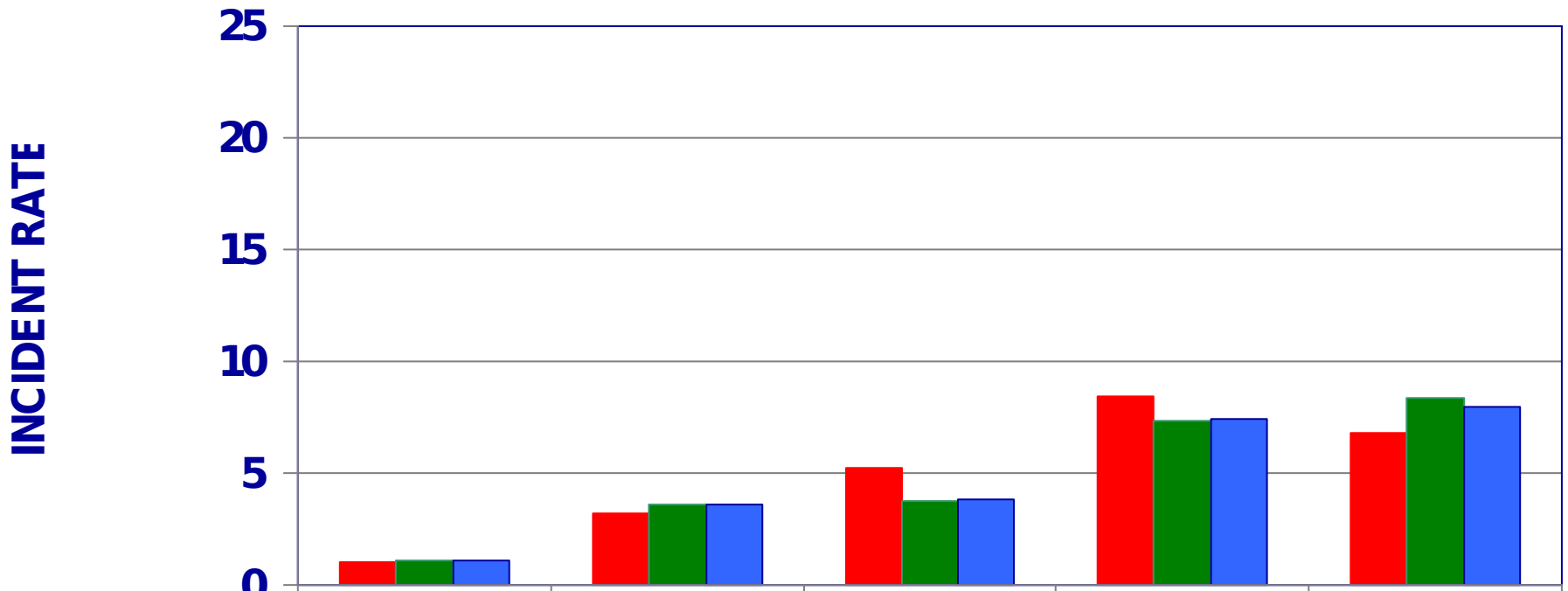
= 7.36

Rock Island Arsenal
Cases and Frequency Rates

CASES	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
LOST TIME	72	43	45	13	21	12	14	10	11
OSHA RECORDABLE	185	115	137	53	49	45	60	41	36
FIRST-AID	120	102	81	84	81	75	60	44	38
TOTAL	305	217	218	137	130	120	120	85	74
LOST WORKDAYS	567	302	167	109	129	74	51	74	84
HOURS OF EXPOSURE	3,753,449.0	3,425,361.0	3,217,248.0	2,848,611.3	2,600,009.4	2,169,851.5	1,986,510.3	2,103,399.7	2,011,228.2
FREQUENCY RATES	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
LOST TIME	3.84	2.51	2.80	0.91	1.62	1.11	1.41	0.95	1.09
OSHA RECORDABLE	9.86	6.71	8.52	3.72	3.77	4.15	6.04	3.90	3.58
FIRST-AID	6.39	5.96	5.04	5.90	6.23	6.91	6.04	4.18	3.78
TOTAL INCIDENT	16.25	12.67	13.55	9.62	10.00	11.06	12.08	8.08	7.36
SEVERITY	30.21	17.63	10.38	7.65	9.92	6.82	5.13	7.04	8.35

RIA SAFETY PERFORMANCE
CEILING vs YTD vs AVERAGE
FY 2003

Status: AMBER



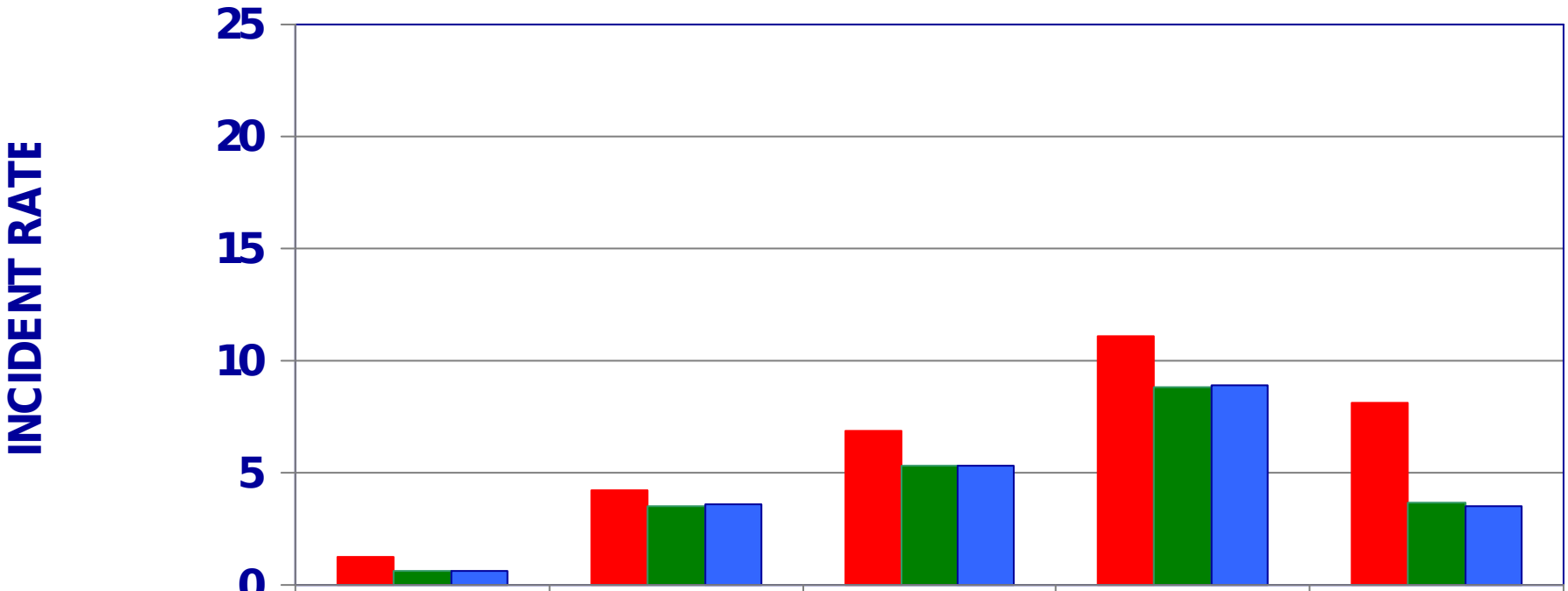
	LOST TIME	OSHA RECORDABLE	FIRST-AID	TOTAL INCIDENT	SEVERITY
CEILING	1.00	3.20	5.23	8.42	6.79
YTD	1.09	3.58	3.78	7.36	8.35
12 MONTH	1.08	3.59	3.81	7.40	7.96

RIA Industrial Center
Cases and Frequency Rates

CASES	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
LOST TIME	58	34	35	10	14	10	11	7	4
OSHA RECORDABLE	169	87	110	42	34	38	46	34	22
FIRST-AID	102	91	71	64	67	60	51	36	33
TOTAL	271	178	181	106	101	98	97	70	55
LOST WORKDAYS	336	276	156	72	62	66	44	40	23
HOURS OF EXPOSURE	2,239,053.0	2,065,978.3	1,978,512.6	1,731,041.0	1,592,350.8	1,274,055.5	1,166,239.7	1,264,318.9	1,244,580.2
FREQUENCY RATES	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
LOST TIME	5.18	3.29	3.54	1.16	1.76	1.57	1.89	1.11	0.64
OSHA RECORDABLE	15.10	8.42	11.12	4.85	4.27	5.97	7.89	5.38	3.54
FIRST-AID	9.11	8.81	7.18	7.39	8.42	9.42	8.75	5.69	5.30
TOTAL INCIDENT	24.21	17.23	18.30	12.25	12.69	15.38	16.63	11.07	8.84
SEVERITY	30.01	26.72	15.77	8.32	7.79	10.36	7.55	6.33	3.70

SOSRI-IC SAFETY PERFORMANCE
CEILING vs YTD vs AVERAGE
FY 2003

Status: GREEN



	LOST TIME	OSHA RECORDABLE	FIRST-AID	TOTAL INCIDENT	SEVERITY
CEILING	1.24	4.20	6.90	11.10	8.10
YTD	0.64	3.54	5.30	8.84	3.70
12 MONTH	0.63	3.57	5.32	8.89	3.54

Cases by Office Symbol

OFFICE	LOST TIME	OSHA	FIRST AID	TOTAL	LOST DAYS
RIA	11	36	38	74	84
CO	0	0	0	0	0
HD	0	0	0	0	0
GC	0	0	0	0	0
IA	0	0	0	0	0
CA	0	0	0	0	0
EO	0	0	0	0	0
SF	0	0	0	0	0
QM	0	0	0	0	0
RM	0	0	0	0	0
CT	0	0	0	0	0
PW	1	2	1	3	1
PC	1	1	0	1	23
LE	3	5	1	6	31
SM	0	0	1	1	0
IC	4	22	33	55	23
ES	1	5	2	7	3
IT	0	0	0	0	0
AP	0	0	0	0	0
CF	1	1	0	1	3

Cost Avoidance

Associated Cost

FISCAL YEAR	MEDICAL	COMPENSATION (COMP)	CONTINUATION OF PAY (COP)	TOTAL
1996	372,365	700,460	24,767	$ 1,097,591
1997	225,005	721,323	32,069	$ 978,397
1998	214,058	668,587	6,970	$ 889,615
1999	79, 867	496,298	27,796	$ 603,961
2000	150,208	496,802	15,033	$ 662,042
2001	255,977	560,713	14,963	$ 831,653
2002	140,814	503,232	16,934	$ 660,980
2003	98,682	502,007	6,782	$ 607,471
TOTAL	$ 1,536,976	$ 4,649,422	$ 145,313	$ 6,331,711

Cost Avoidance

Calculating Cost Avoidance:

Cost Avoidance = [(Base Year Lost Time Rate / Current Year Lost Time Rate) x (Current Year Total Cost)] - (Total Cost)

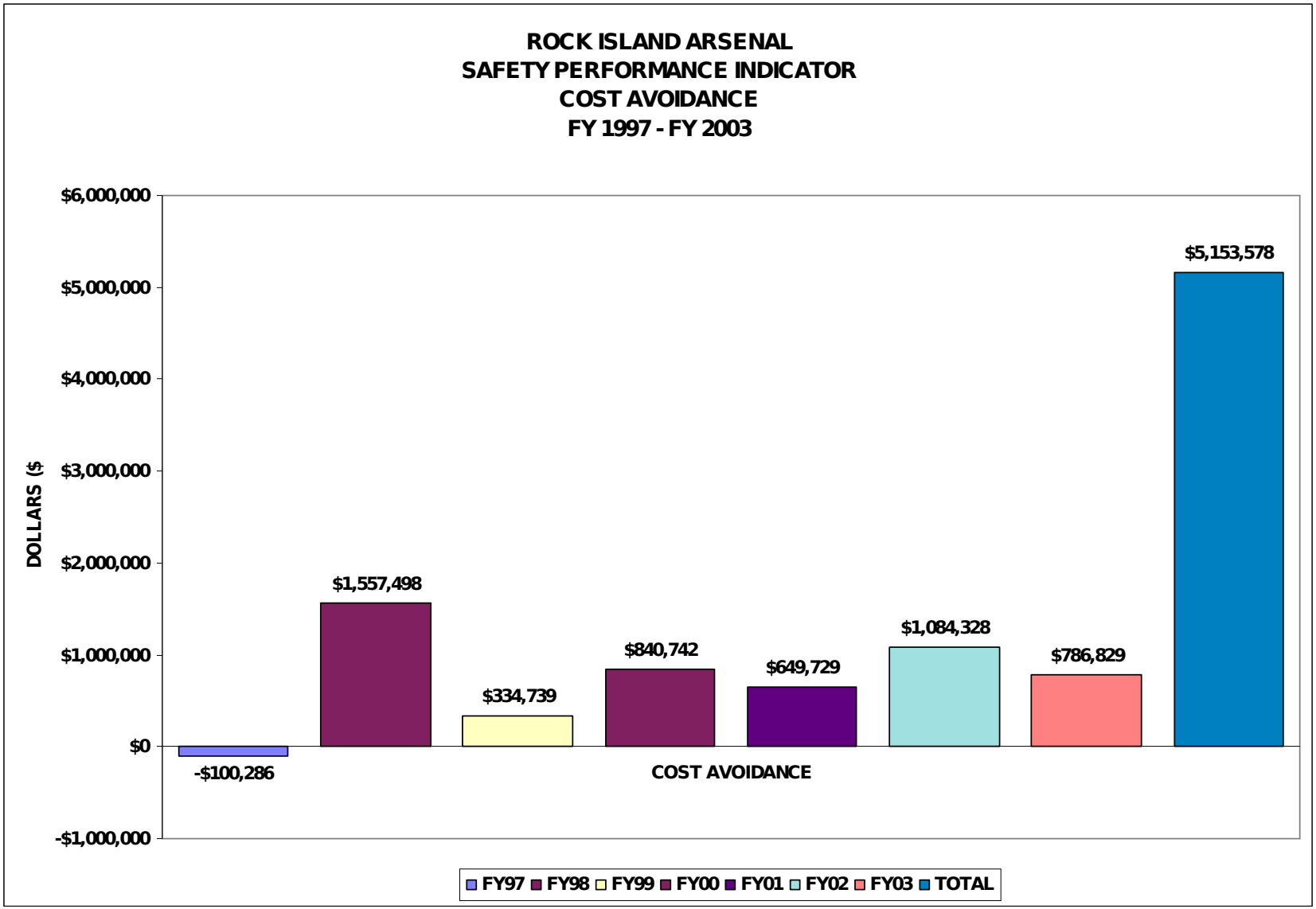
Example: Calculating FY03 Cost Avoidance using FY96 Lost Time Rate as the Base Year Lost Time Rate.

Cost Avoidance = [(2.51/1.09) x $ 607,471] - $ 607,471

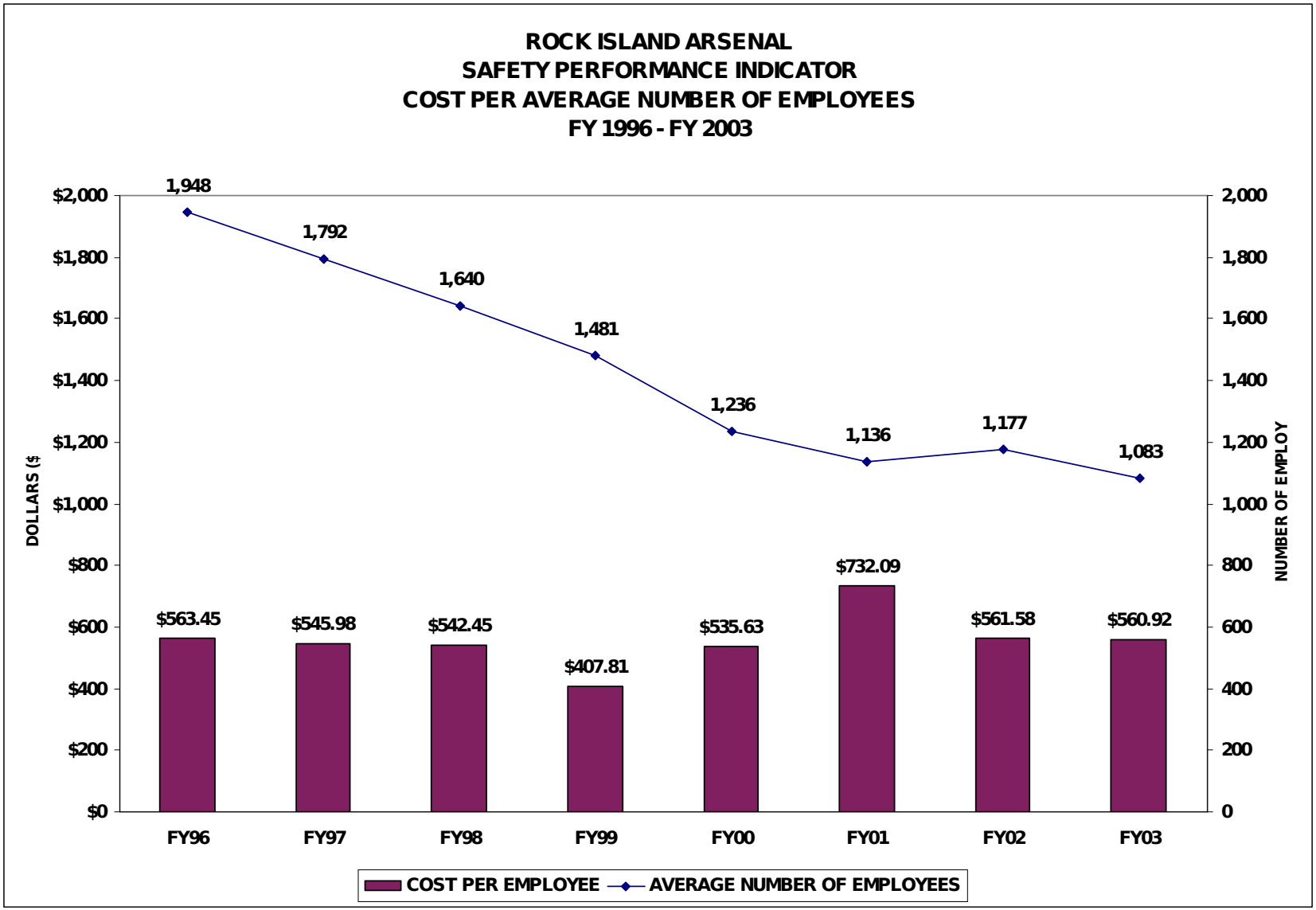
= $ 786,829

Note: Lost Time Rate is the best indicator for

Cost Avoidance



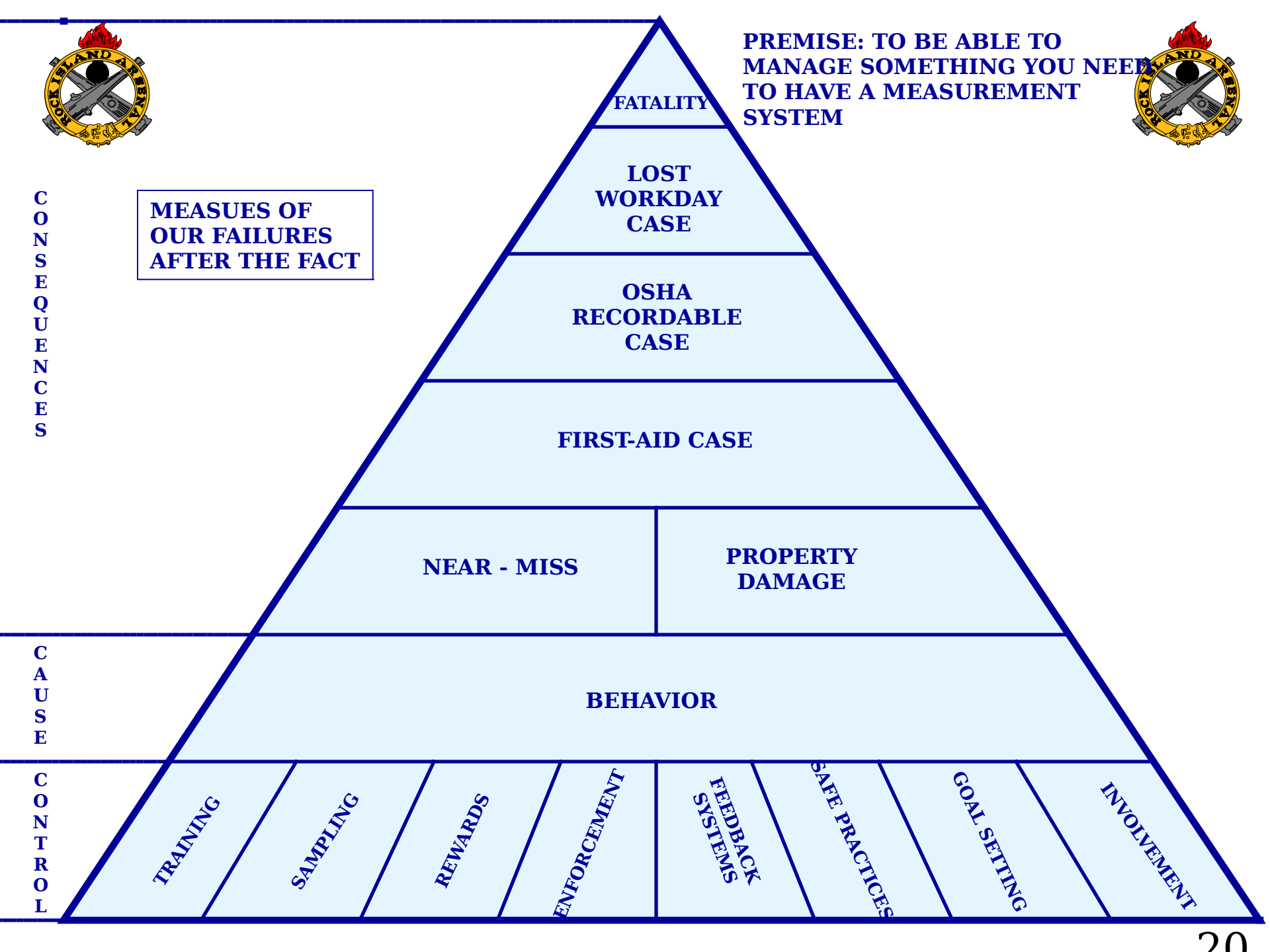
Cost Per Employee



FY 2004 Ceilings

FY 2004 Ceilings

- ✔ **Garrison and Mission Split**
  - ➤ **Creation of New Directorates and Divisions**
  - **Restructuring of Cost Centers**
- ✔ **Ceilings based on past 3 years safety performance**
  - **Combine previous cost centers into current single structure**
  - **Simulate previous safety performance**
  - **Recommend obtainable ceilings**
  - **Commander sets ceilings**


PREMISE: TO BE ABLE TO MANAGE SOMETHING YOU NEED TO HAVE A MEASUREMENT SYSTEM
MEASUES OF OUR FAILURES AFTER THE FACT
CONSEQUENCES
FATALITY
LOST WORKDAY CASE
OSHA RECORDABLE CASE
FIRST-AID CASE
NEAR - MISS
PROPERTY DAMAGE
CAUSE
BEHAVIOR
CONTROL
TRAINING
SAMPLING
REWARDS
ENFORCEMENT
FEEDBACK SYSTEMS
SAFE PRACTICES
GOAL SETTING
INVOLVEMENT

Risk Management Training

Risk Management Training

- ✔ **Directed by TACOM**
- ✔ **Suspense: 30 September FY 2003**
- ✔ **All RIA Employees trained, except**
  - **2 Active Duty, 2 Extended S/L, 1 TDY**
- ✔ **Training Breakdown**
  - **742 PC Based**
  - **371 Classroom**

Review of Parking Lot Illumination

Parking Lot Illumination

- ✔ Follow-up to Open Action
- ✔ Concern expressed regarding lighting in some parking lots
- ✔ Surveys conducted in March and September 2003 using an EXTECH Model 403125 Light Probe Meter
- ✔ Recommendations published by the Illuminating Engineering Society (IES)
- ✔ Parking Lots were broken into four (4) quadrants
- ✔ Findings forwarded to PW and SF
- ✔ Map of sites and readings available

Parking Lot Illumination

Lot	Location	Findings	Comments
1O	Large lot South of Memorial Park	West Side – Adequate East Side – Needs further Evaluation	
1K	Lot parallel to South Avenue, West of East Avenue	Light Adequate throughout	
1N	Extension South of Lot 1K and West of Building 159	Lighting is mostly adequate. Two lights near building 159 not working.	
1I	Lot North of Building 131	Lighting is Adequate	
1P	Large lot East of Building 299	Lighting is very adequate. Hard lot extensions to East and South not surveyed.	

Parking Lot Illumination

Lot	Location	Findings	Comments
D	Large lot South of Building 227, Steam Plant	Lighting not adequate except for section adjacent to Gillespie Avenue	
2F	Lot South of Building 240	Lighting is very adequate	
2G	Large lot South of Building 212	Lighting is exceptional	
2H	Lot West of Building 208	Lighting is Adequate	

Parking Lot Illumination

Lot	Location	Findings	Comments
3H, 3N, 3F, 3L	Lots serving the Building 350, 351 complex	Lighting is entirely adequate for listed lots South of Durnan Street and East of Landis Street	
3B	Lot East of Pershing Circle and South of North Avenue	Lighting is adequate	
3K	Lot North of North Avenue serving Building 390	Lighting is only adequate within the strip along North Avenue. It is very dark near the wooded area to the North. The access to this lot on Gillespie Avenue is difficult to see.	

Parking Lot Illumination

Lot	Location	Findings	Comments
0J	Lot North of Buildings 60, 62, 64, and East of Gillespie Avenue	This lot is similar to Lot 3K. Lighting is only adequate near North Avenue. Access from Gillespie is difficult to see.	
0K	Small strip lot East of Lot 0J and North of North Avenue	Lighting is adequate	
0L	Lot North of Building 56 and West of East Avenue	Lighting is adequate	

NOTE: Not all lots were surveyed, including building courtyards, the lot surrounding building 90 and the lots adjacent to the buildings along Rodman Ave.

Review of Hazardous Processes

Risk Management Matrix

Hazard Severity	Hazard Probability				
	Frequent	Likely	Occasional	Seldom	Unlikely
	A	B	C	D	E
I Catastrophic	E	E	H	H	M
II Critical	E	H	H	M	L
III Marginal	H	M	M	L	L
IV Negligible	M	L	L	L	L

E - Extremely High Risk	RAC 1
H - High Risk	RAC 2
M - Moderate Risk	RAC 3
L - Low Risk	RAC 4 & 5

Evaluations Performed

- ✔ **Bldg 212W, Weld Shop**
  - ➤ **15 RAC 4, 5 RAC 5**
- ✔ **Building 11 & 16, CDC**
  - ➤ **3 RAC 5**
- ✔ **Building 212F, CC8301, Mold & Melt**
  - **3 RAC 2, 15 RAC 3, 1 RAC 5**
- ✔ **Bldg 212-F, CC8302, Cleaning Room**
  - **1 RAC 2, 4 RAC 3, 2 RAC 4, 2 RAC 5**
- ✔ **Bldg 212-F, CC8303, Pattern Making**
  - **2 RAC 3, 2 RAC 4, 3 RAC 5**
- ✔ **Bldg 220, CC 8304, Investment Casting**
  - **1 RAC 3, 6 RAC 5**

Evaluations Performed

- ✔ **Bldg 25, Engineering & Simulation Team**
  - **1 RAC 3, 3 RAC 4, 4 RAC 5**
- ✔ **Bldg 90, RIA Safety**
  - **1 RAC 4, 3 RAC 5**
- ✔ **Bldg 225, Fire Dept.**
  - **6 RAC 2, 10 RAC 5**
- ✔ **Bldg 299, GSA Tool Sets**
  - **1 RAC 5**
- ✔ **Bldg 208-231, Crane Operators**
  - **18 RAC 5**
- ✔ **Bldg 208, CC2320, Sheet Metal Maint.**
  - **3 RAC 4, 2 RAC 5**

Evaluations Performed

- ✔ **Bldg 208, CC 2390, Hoist & Crane Maint.**
  - ➤ **5 RAC 5**
- ✔ **Bldg 208, Millwrights,**
  - **4 RAC 4, 1 RAC 5**

Fire & Emergency Services

Fire & Emergency Services

- ✔ **Purpose**
  - ➤ **Mandated to Start Occupational Safety & Health Committee in FD by ACSIM**
  - **Discuss Upcoming Events**
  - **Discuss Important Topics**

Fire & Emergency Services

- ✔ **Smoking Policy**
  - **Recent Fires**
- ✔ **Smoke Detectors**
  - **Change Your Clocks/Change Your Batteries**
  - **Clean Out**
- ✔ **Carbon Monoxide Detectors**
  - **As Important As Smoke Detectors**
  - **Winter Season Is Worst Time**

Directorate / Office Safety Actions and Lessons Learned

AMSTA-RI-BD

- ✔ **Safety Actions:**
  - ➤ **Held one safety meeting (AP, GC, IA)**
  - **Corrected findings discovered during 3rd qtr safety audit of all areas**
  - **Employees completed Risk Management training**
- ✔ **Lessons Learned:**
  - **Discussion on audit findings**
  - **The purpose of this training requirement is to develop a greater awareness of the hazards in our work environments**

AMSTA-RI-CF

- **Safety Actions:**
  - **Monthly safety Meetings were conducted in all functional areas.**
  - **Safety tips were discussed and minutes provided to all employees.**
  - **Chief of SF offered suggestions to CYS on how to complete SAAR forms.**
  - **Mandatory TACOM Risk Management Training completed.**

AMSTA-RI-CF

- ✔ **Lessons Learned:**
  - ➤ **Correct method/comments required for completion of SAAR forms. Suggest this be offered as a training for supervisors.**
  - **TACOM Risk Management Training- To be aware of your surroundings.**
  - **Use proper lifting procedures and look where you are walking.**
- ✔ **NO MAJOR INCIDENCES OR UNSAFE SITUATIONS OCCURRED**
  - **Two minor incidents.**
    - **Employee tripped while walking.**
    - **Minor injury while lifting child at the CDC.**

AMSTA-RI-CT

- ✔ **Safety Actions:**
- ✔ **Monthly Safety Meetings held in conjunction with Office Staff Meeting Topics Discussed:**
  - **July – First Aid for Heat Stroke**
  - **Aug – Drive Safely : School Starts**
  - **Sept – Managing Stress at Work & Home**
- ✔ **Conducted internal office safety audit – results discussed and corrected**
- ✔ **Completed Mandatory Risk Management Training**

AMSTA-RI-CT

- ✔**Lessons Learned:**
  - **Awareness of safety and health hazards, what to watch for, how to react in these circumstances**
  - **SAFETY IS ALWAYS #1**
- ✔**Safety Officer: Connie Duffy, ext. 1558**

AMSTA-RI-EO

- **Safety Actions:**
  - **Practice Fire Safety**
- **Lessons Learned:**
  - **Install/check batteries on fire alarms**
  - **Know exits**
  - **Practice escapes**

AMSTA-RI-SE

- ✔ **Safety Actions:**
  - ➤ **Directorate & Division Safety meetings, area safety checks, etc., have all be conducted.**
  - **B25 sidewalk completed; B211 stairwell area cleared of trash.**
  - **Employees viewed video on fire safety and importance of quick evacuation.**
- ✔ **Lessons Learned:**
  - **Will establish new list of fire wardens and alternate evacuation route now that directorate move is completed.**
  - **One back injury w/no time lost; SAAR completed.**

AMSTA-RI-FP

- **Safety Actions:**
  - **Gravel or concrete was added to areas where officer walk at the gates**
  - **Officers are reminded of safety issues daily such as wearing reflective vests at the gate, dressing and driving according to the weather.**
  - **Officers are given one hour classroom instruction prior to annual qualification on the firing range**
  - **An EMT from the RIAFD now attends all range live fire qualifications and familiarizations.**

AMSTA-RI-FP

- **Lessons Learned:**
  - **Kerosene Heaters were placed back out at the gates and past issues were discussed, such as keeping a safe distance from the heater, handling the fuel, etc.**

AMSTA-RI-GC

- **Safety Actions:**
  - Clearing offices of excess IT equipment
  - Provided input to AMSTA-RI-FP on Safe extinguishing of Smoking Materials.
- **Lessons Learned:**
  - Attending quarterly safety meetings
  - Completed Risk Management Training
- **Action Officer, John J. Welling, ext. 28433**

AMSTA-RI-IA

- **Safety Actions:**
  - **Attended (AMSTA-RI-RM) or held monthly Safety meetings**
  - **Conducted monthly internal safety audits**
- **Lessons Learned:**
  - **Home Disaster Safety**
  - **Safety Glasses**

AMSTA-RI-MS/PD

- **Safety Actions:**
  - **Monthly Directorate/Division Safety Meetings; (Lifting Procedures, Hazardous Waste, Material Movement)**
  - **SAARs: 16 (No lost time)**
  - **Segway: Safety evaluation**
- **Lessons Learned:**
  - **Close Call: Fall on stairs**
  - **Ageing Workforce: Heightened safety awareness for physical activity.**

AMSTA-RI-LD

- ✔ **Safety Actions:**
  - **Roof Drains Cleaned**
  - **New runners in walkways**
  - **Replaced 2 roll up doors**
  - **Instruction cards placed in Evacuation Flag Boxes**
  - **Completed Risk Management Training**
- ✔ **Lessons Learned:**
  - **Roof drains need to be checked periodically**
  - **Runners need to be replaced periodically**
  - **Continue to review & communicate evacuation procedures**

AMSTA-RI-IT/ITR

- **Safety Actions:**
  - **Briefed Division on highlights of monthly Fire Marshall/Warden Meetings.**
  - **Routed minutes through directorate.**
- **Lessons Learned:**
  - **Need to coordinate Evacuation assembly point location.**
  - **Employees of combined new directorate assembled at their old separate locations, making headcount difficult.**

AMSTA-RI-OC

- **Safety Actions:**
  - **Hayrack Ride – Conducted Risk Assessment with SF and FPL**
  - **New Employees Orientation Tours – emphasize need for personal protective equipment (eyewear)**
- **Lessons Learned:**
  - **Ensure coordination of activities with appropriate parties.**
  - **Need to re-establish monthly safety meeting with Safety Office POC**

AMSTA-RI-PC

- **Safety Actions:**
  - **July Safety Meeting: Food Safety**
  - **August: General safe work habits stressed**
  - **September: Risk Management Training**
- **Lessons Learned:**
  - **The importance of Food Safety**
  - **The importance of being aware of your surroundings and any potential risk that may exist**

AMSTA-RI-PW

- **Safety Actions:**
  - **We ensure new employees and interns have PPE**

- **Lessons Learned:**
  - **Overhead crane incident**

AMSTA-RI-QM

- **Safety Actions:**
  - **Conducted Monthly Safety Meetings**
  - **Conducted Monthly Safety Audits**

- **Lessons Learned:**
  - **July 2003- Heat Stress**
  - **August 2003- Home Safety**
  - **September 2003- Respiratory Protection**

AMSTA-RI-RM

- **Safety Actions**
  - **Conducted monthly safety meetings this quarter**
  - **Continually audited safety conditions in RM work area**
  - **IA and GC now attending RM Safety Meetings.**

- **Lessons Learned**
  - **Home disaster preparedness**
  - **Online Risk Management Training**
  - **Fire safety**

AMSTA-RI-SF

- ✔ **Safety Actions:**
  - ➤ **Suspected Unexploded Ordnance (UXO)**
    - **Concurrence on MOU completed**
    - **MOU forwarded to all parties**
  - **Risk Management Training Conducted**
  - **Assisting with SAAR activities**
  - **Safety Gram - Traffic and Pedestrian Safety**
  - **Assistance visits with IMA-NWR**
    - **Fort Carson**
    - **Fort McCoy**

AMSTA-RI-SF

- **Lessons Learned:**
  - **Talk in terms of “Risk” not just ‘Safe’ or ‘Unsafe’**
  - **Need to increase Contractor oversight**
  - **Will establish Safety Office POCs for various organizations**
- **DoD may propose 50% reduction in injuries**
  - **Additional criteria could be offered**

Review of Open Actions

Review of Open Issues

Open Action	Assigned To:	Date Assigned:	Date Due:	Status:	Comments:
Automatic Electronic Defibrillator	GC, PW, PWF, RIA-OPS, SF	07 Feb 2002		On-going	2 in TACOM, 1 in Gym 1 in TMDE
Risk Management Training	SF	July 2003	Oct 2003	Completed	All RIA trained. Only 5 employees (Active Duty, Extended S/L, TDY) remain
Outdoor Lighting Evaluation – Parking Lots	SF, IH	Mar 2003	Oct 2003	On-going	Evaluation conducted and report forwarded to PW and SF

Hot Topics

Hot Topics

- ✔ **Winter Conditions**

Issues from the Council

Wrap Up

- ✔ **Next SOHC – January FY 2004**

ROCK ISLAND ARSENAL
CENTER FOR EXCELLENCE